# Easy Elevator (Unity 5.3.5f1)

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## PACKAGE STRUCTURE:

- - IE: (YourProjectsName)/Assets/Resources/LEDPanelTexturesV2
- /Easy Elevator/
  - ▶ /Demo Scene/
    - ▶ /Demo Models/
      - □ [ DEMO SCENE MODELS ]
      - /Materials/
    - /Demo Prefabs/
      - □ [ DEMO SCENE PREFABS ]
    - Demo Scene
    - /Demo Scene/
      - □ [ DEMO SCENE LIGHTMAPS ] Removed in Unity 5 Package
    - /Demo Script/
      - elevFollow.cs
      - secondCamTrigger.cs
  - ► /Elevator/
    - /Easy Elevator (non scripted prefabs)/
      - ElevatorPREFAB
      - □ ElevHallFramePREFAB
    - □ ElevatorScriptedPREFAB\_V2
    - ElevHallFrameGroupPREFAB V2
    - □ ElevHallFrameScriptedPREFAB\_V2
    - /Models/
      - □ ElevatorV2
      - /Materials/
    - /Scripts/
      - □ callBtnTrigger.cs
      - □ controlTrigger.cs
      - □ elevControl.cs
      - □ elevHallFrameController.cs
    - /Textures/
      - □ [ELEVATOR TEXTURES]
- /Resources/
  - □ /LEDPanelTexturesV2/
    - □ [ TEXTURES FOR LED DISPLAY ]

#### SETUP:

(i) IMPORTANT: Ensure the Resources/LEDPanelTexturesV2 folder is placed in your Projects Assets Root folder.

- 1. Drag ElevatorScriptedPREFAB\_V2 into your scene
  - a. Check tag on prefab. If not set, add a tag to the prefab (ie: elev01)
  - **b.** In the Inspector window, check that the **Hall Frame Tag** field in the **Elev Control (Script)** component has a string assigned (ie: elev01hallFrame)
- 2. Drag ElevHallFrameGroupPREFAB\_V2 into your scene
  - a. Expand the group, select all the Gameobjects inside the group and assure the tag matches the string on the ElevatorScriptedPREFAB\_V2 > Elev Control (Script) > Hall Frame Tag field
  - Assure that the string in Elev Tag field of Elev Hall Frame Controller (Script) matches the tag set on the ElevatorScriptedPREFAB\_V2

# **DEFAULT CONTROLS** ( found in elevControl.cs > Update() )

#### HALL:

When close to the call button on the hall frame (inside trigger) , the button highlights to green.

Press E to activate the button (button changes to yellow when pressed)

#### **ELEVATOR:**

When close to the elevator panel (inside trigger), the button for the current floor highlights to green.

Press R to highlight the next floor button

Press F to highlight the previous floor button

Press E to activate the button (button changes to yellow)

# **CLOSER LOOK AT SCRIPTS:**

## elevControl.cs ( attached to ElevatorScriptedPREFAB\_V2 )

Button On Mat < Material >> The material used for the activated buttons

Button Off Mat < Material> >> The material used for the non activated buttons

Button Selector Mat < Material> >> The button highlight material

Led Mat <Material> >> The material used for both the elevator and hall frame LED displays.

(i) IMPORTANT: When using multiple elevators, this material must be unique to each elevator / hall frame combo. This material is assigned to the LED Displays in the Start() function

Led Panel <Transform> >> The LED Panel of the this elevator

Led Mat Switch Delay <Float> >> The amount of time the LED panel is blank while changing floors

Led Folder Name <String> >> The name of the folder containing the LED emission textures inside the Resources folder

Bth Light Group <Transform> >> The group of button lights on this elevator panel

Hall Frame Tag <String> >> The tag used for each hall frame gameobject in the HallFrameGoupPREFAB\_V2 that this elevator can travel to

(i) IMPORTANT: This string MUST match the tag on the ElevHallFrameScriptedPREFAB\_V2 gameobjects parented to the ElevHallFrameGroupPREFAB\_V2. When using multiple elevators, this string AND tag MUST be different for each elevator / hall frame combo

Cur Floor Level </nt> >> The floor the elevator will be on when the game starts

Time Btwn Floors <Float> >> How long the elevator takes to travel between floors

Default Close Door Time <*Float>* >> How long to wait before moving the elevator (only used if using the Animator component for animations)

Legacy Animation <Bool> >> Use the Animation component instead of the Animator Component

Doors Open <Bool> >> If true, the doors will be open when the game starts

Wait For Fixed Update <Bool> >> A fix for player jitter when the elevator is moving

#### elevHallFrameController.cs ( attached to ElevHallFrameScriptedPREFAB\_V2 )

Floor </nt> >> The floor this hall frame is on

Call button Light <Transform>>> The button light gameobject on this hall frame

Hall Led Panel <Transform> >> The LED display on this hall frame

Elev Tag <String> >> The tag for the elevator associated with this hall frame

IMPORTANT: This string MUST match the tag on the ElevatorScriptedPREFAB\_V2 gameobject that will be using this hall frame to travel to. When using multiple elevators, this string AND tag MUST be different for each elevator / hall frame combo

Legacy Animation <Bool> >> Use the Animation component instead of the Animator Component

#### controlTrigger.cs ( attached to ElevatorScriptedPREFAB\_V2>TriggerControls )

( NO CONFIGURATION REQUIRED )

#### callBtnTrigger.cs ( attached to ElevHallFrameScriptedPREFAB\_V2>TriggerCallBtn )

( NO CONFIGURATION REQUIRED )

# **NOTES:**

The position of the ElevatorScriptedPREFAB\_V2 in the scene is not important. On Start(), the position is set to the Hall Frame position of the current floor set in the ElevatorScriptedPREFAB\_V2 ( Elev Control ( Script )> Cur Floor Level )

If using Legacy Animation (Animation Component)
Animations need to be labeled "OpenDoorsV2" / "CloseDoorsV2"

If using the Animator Controller

When a button is pressed, elevControl script will look for a int parameter called "doorState" and set the integer to 1 to play the door open animation. A value of 0 will play the door close animation

The textures for the LED mat are, and **MUST** be in the "[YourUnityProject]/Assets/Resources/[FOLDER NAME]" folder. The default folder name is "LEDPanelTexturesV2", if the textures are in a different folder, change the name of the string **Led Folder Name** in the **elevControl** on the elevator prefab

If using more than 1 elevator, the LED mat assigned in the inspector for each elevator must be different. The script will assign this material to the elevator LED and the Hall frame LEDs that belong to this elevator.

ie: 3 elevator setup will require 3 LED materials elevLED, elevLED2, elevLED3. Assign each material to

ElevatorScriptedPREFAB V2>Elev Control (Script)>Led Mat

ElevatorScriptedPREFAB2\_V2>Elev Control (Script)>Led Mat

ElevatorScriptedPREFAB2\_V2>Elev Control (Script)>Led Mat

# **DEMO SCENE GUIDE**

Import the First Person Character from the Unity Standard Assets package. (can be downloaded and imported from the Unity Asset Store)

Drag the "FPSController" prefab into the Demo scene, and make the following changes to it:

CHARACTER CONTROLLER Skin Width = 0.02 Radius = 0.3

FIRST PERSON CONTROLLER
Use Head Bob = OFF

The controls for the Elevator in the Demo Scene are:

E - Press Button

R - Select Next Button

F - Select Previous Button

#### **CHANGE LOG:**

#### Oct 10 2019

- Fixed an issue where the elevator button controls would stay active after being used, regardless of the player being inside the trigger zone
- Updated the scripts to be able to use the Animator component:
  - Uncheck "Legacy Animation" checkbox in the elevControl script and the elevHallFrameController script.
  - When using the Animator component, the elevator, before moving will use the "Default Close Door Time" in the elevControl script instead of the animation length.
  - Included an Animator Controller for reference, with an int parameter called "doorState". A value of 1 will play the DoorOpen animation, and 0 will play the DoorClose animation.
  - Added a string value in the elevControl script called "LED Folder Name": the string value is the name of the folder the LED Emission textures are in, in the Resource folder.

#### Apr 23 2018

- As per new Asset submission guidelines, the First Person Character controller included in the Unity Standard Assets package was removed.
- Modified the Demo scene to display the Elevator controls
- Removed Nifty Studios Logo from the Demo Scene

#### Feb 21 2017

- Adjusted Elevator UVs, animations, created new textures and materials for Unity 5 PBR Standard material.
- Modified elevControl.cs to work with Standard Material (will not work with legacy)
- Modified elevHallFrameController.cs to work with new animations

#### Mar 4, 2015

- Repackaged for Unity 5
  - Fixed script API changes from Unity 4 to 5
  - Re-linked animation clips in prefabs (links were lost when importing into Unity 5)
  - Removed deprecated lightmaps folder -> /Easy Elevator/Demo Scene/Demo Scene. The Demo Scene no longer has lightmaps